

What is claimed is:

1. *Escherichia coli* which has an ability to produce arginine and an ability to utilize acetate.
2. *Escherichia coli* according to claim 1, wherein the bacterium forms a colony within 2 days at 37°C when the bacterium is cultivated on an agar medium containing acetic acid or acetate as a sole carbon source.
3. *Escherichia coli* according to claim 1 or 2, wherein the bacterium is a derivative of *Escherichia coli* K12.
4. A method of producing arginine comprising the steps of cultivating *E. coli* according to any of claims 1 to 3 in a culture medium to produce and accumulate arginine in the medium, and collecting arginine from the medium.